# Definitions

| Term | Definition |
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| Vehicle | The chosen object from the Vehicle Library. Can be freely placed on the plan and rotated like any other object in RapidPlan. It can’t be resized, its size is automatically adjusted to the scale of the current canvas area. |
| Vehicle Path | Steering path for the vehicle. The path consists of user control points that reflect subsequent vehicle positions during the manoeuvre. The path consists of sections that can have different parameters such as speed, friction and turn on stop setting (on/off) within a single path. |
| Vehicle Profile | An object that can be placed onto the document to represent the vehicle used in Swept Path Analysis. Vehicle profile consists of vehicle’s name, basic properties, and side diagram with key dimensions. |
| Path Section | These are the sections between the user control points of the Vehicle Path. You can select and edit a Path Section by selecting the whole path and then clicking on a section that interests you with the left mouse button while holding the “Ctrl” key. Each segment has properties such as speed, friction and turn on stop setting (on/off). |
| Sweep Envelope | The result of the swept path analysis. Defined as the visible turning space needed for a specific vehicle on a specific path to operate safely on the road network and to avoid causing damage to roadside furniture. |
| Evaluated Vehicle Path | To see the Sweep Envelope, the Vehicle Path needs to be calculated. Adding any changes to the Vehicle Path will remove the Sweep Envelope and a recalculation will be required. Sweep Envelope is not saved within the “.tcp” file, which means that upon opening the plan Vehicle Paths inside should be reevaluated manually. |
| Clearance Envelope | Clearance Envelope is a zone outside the actual Sweep Envelope. It allows you to add an extra offset to accommodate for driver error or real-world situations. |
| Lock To Lock Time | Time in seconds that it takes the driver of the vehicle to turn the steering from full lock in one direction to full lock in the opposite direction in a single continuous movement. This may differ depending on which standards and vehicle types are used. |
| Speed and Friction Link | The lateral friction factor is dependent on the vehicle speed and is calculated according to the chosen vehicle and its related standards. You can disable this behavior by clicking on the link/unlink toggle button in the “Section details” window while drawing the vehicle path. |
| Turn on Stop | The option that allows the vehicle to make a stop and turn the front wheels between different sections of the Vehicle Path. |
| Steering Angle | The steering angle is defined as the angle between the front of the vehicle and the wheels direction. Value of max steering angle for each vehicle can be found inside the Vehicle Library. |
| Turning Radius - Curb to Curb | The radius of the turning circle that denotes how wide a street would need to be so the vehicle can make a U-turn without hitting the street curb with the wheel. Value of minimum turning radius (curb to curb) for each vehicle can be found inside the Vehicle Library. |
| Turning Radius - Wall to Wall | The radius of the turning circle that denotes how far apart two walls would need to be so the vehicle can make a U-turn without scraping the walls with the bumper. Value of minimum turning radius (wall to wall) for each vehicle can be found inside the Vehicle Library. |
| Min Radius | Centerline radius of the smallest circular turn that the vehicle is capable of making at a given speed. |